Remarks

The Office Action mailed November 4, 2002 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-8, 11-28, 31-41, and 44-60 are now pending in this application. Claims 1-9, 11, 12, 15-29, 31, 32, 34-42, and 44-50 stand rejected. Claims 10, 13, 14, 30, 33, and 43 stand objected to. Claims 9, 10, 29, 30, 42 and 43 have been cancelled. Claims 51-60 are newly added.

A fee calculation sheet for the newly added claims along with authorization to charge a deposit account in the amount of the calculated fee are submitted herewith. In addition, and in accordance with 37 C.F.R. 1.136(a), a one month extension of time is submitted herewith to extend the due date of the response to the Office Action dated November 4, 2002, for the above-identified patent application from February 4, 2003, through and including March 4, 2003. In accordance with 37 C.F.R. 1.17(a)(1), authorization to charge a deposit account in the amount of $110.00 to cover this extension of time request also is submitted herewith.

The rejection of Claim 41 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Claim 41 has been amended to address the issues noted in the Office Action.

The rejection of Claims 1-2, 4, 6-9, 12, 15, 21-22, 24, 26-29, 32, 39, 40, 42, 44, 45, and 50 under 35 U.S.C. § 102(b) as being anticipated by Getter (U.S. Patent No. 4,872,102) and the rejection of Claims 3, 5, 11, 16-20, 23, 25, 31, 34-38, 41, and 46-49 under 35 U.S.C. § 103 as being unpatentable over Getter are respectfully traversed. In addition, the rejection of Claims 1-2, 4, 7-9, 15, 21-22, 24, 27-29, 39, 40, 42, 44, and 45 under 35 U.S.C. § 102(e) as being anticipated by Oyamada et al. (U.S. Patent No. 6,166,905) is respectfully traversed and the rejection of Claims 3, 5, 6, 11, 15-20, 23, 25, 26, 31, 34-38, 41, and 46-50 under 35 U.S.C. § 103 as being unpatentable over Oyamada et al. is also respectfully traversed. Further, the objection to Claims 10, 13, 14, 30, 33, and 43 is traversed.

Claim 1 has been amended to include the limitations of former Claim 10, which has been indicated as being allowable, if written in independent form. Hence, Claim 1 is submitted to be patentable over Getter.

Claim 9 has been cancelled. Claims 2-8, 11, and 15-20 depend, directly or indirectly, from independent Claim 1. Applicant submits that dependent Claims 2-8, 11, and 15-20 likewise are patentable over Getter.

Claim 12 has been amended to depend from Claim 13. Claim 13 has been amended to be in independent form. Claim 13 was indicated in the Office Action as being allowable.

Claim 21 has been amended to include the limitations of former Claim 30, which was indicated as being allowable, if written in independent form. Hence, Claim 21 is submitted to be patentable over Getter.

Claim 29 has been cancelled. Claims 22-28, 31, and 34-38 depend, directly or indirectly, from independent Claim 21. Applicant submits that dependent Claims 22-28, 31, and 34-38 likewise are patentable over Getter.

Claim 32 has been amended to depend from Claim 33. Claim 33 has been amended to be in independent form, and was indicated in the Office Action as being allowable.

Claim 39 has been amended to include the limitations of Claim 43, which was indicated as being allowable, if written in independent form.

Claim 42 has been cancelled. Claims 40 and 44-50 depend, directly or indirectly, from independent Claim 39. Applicant submits that dependent Claims 40 and 44-50 likewise are patentable over Getter.

Claims 10, 30, and 43 are cancelled. Claims 13 and 33 are rewritten in an independent form and are submitted to be allowable. Claim 14 depends from independent Claim 13.

For the reasons set forth above, Applicant respectfully requests that the rejections of and the objections to the Claims be withdrawn.

With respect to newly added Claim 51, Applicant respectfully submits that none of the cited art describes a water resistant electronic device which includes a heat sink coupled to a housing utilizing a gasket providing a water-tight seal between the heat sink and the housing, where the heat sink transfers heat from an interior portion of the housing to the external environment.

Getter describes a housing for an inverter (10) where an internal heat sink (50) is mounted to an end (22) of the housing and an external heat sink (24) is mounted external to end (22). The heat sinks(24,50) are compressed together on opposite sides of end (22) utilizing heat sink screws (66). However, Getter neither shows nor describes a heat sink, mounted to an exterior of a housing, that transfers heat from an interior portion of the housing to the external environment where a gasket provides a water-tight seal between the heat sink and the interior of the housing.

Oyamada et al. describe at Column 1, lines 20-31, a sealed casing 21 which has a heat sink (22) affixed to an interior of casing (21) using screws (24) and waterproof packing (23). A portion of heat sink (22) extends through casing (21) to the external environment. However, a water-resistant electronic device having electronics mounted in an interior portion, a heat sink, mounted to an exterior of a housing, that transfers heat from an interior portion of the housing to the external environment, and a gasket providing a water-tight seal between the housing exterior and the heat sink is not shown nor described. Therefore, Applicant submits that Claim 51 is patentable over the cited art.

With respect to newly added Claim 58, Applicant respectfully submits that none of the cited art describes an enclosure for electronic components which includes a housing comprising an interior portion and an opening formed in the housing into the interior portion, the housing being adapted to prevent water from entering the interior portion, a door attached to the housing

that is sealably covering the opening and moveable between open and closed positions, and a heat sink sealably coupled to an exterior of the housing that transfers heat from the interior portion to the external environment. Therefore, Applicant submits that Claim 58 is patentable over the cited art.

Submitted below in Appendix A are marked up claims in accordance with 37 C.F.R. 1.121(c)(1)(ii), wherein additions are underlined and deletions are [bracketed]. In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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APPENDIX A

SUBMISSION OF MARKED UP CLAIMS

IN THE CLAIMS

1. (once amended) A water-resistant electronic device comprising:

a housing having an interior portion, said housing is adapted to prevent water from entering said interior portion;

electronics mounted within said interior portion;

a fastening member; and

a heat sink, said heat sink adapted to be coupled to said housing by said fastening member, said heat sink comprising a protuberance that extends into said housing and that is coupled to said fastening member, wherein said heat sink is adapted to transfer heat from said interior portion to the external environment.

12. (once amended) The electronic device as recited in claim [1]13, [further comprising a]said face plate [that is coupled to said housing and]adapted to selectively control said electronics.

13. (once amended) [The electronic device as recited in claim 12]A water-resistant electronic device comprising:

a housing having an interior portion, said housing is adapted to prevent water from entering said interior portion;

electronics mounted within said interior portion;

a face plate coupled to said housing; and

a heat sink, said heat sink adapted to be coupled to said housing, wherein said heat sink is adapted to transfer heat from said interior portion to the external environment, wherein said face plate has an opening formed therein and a door that is coupled to said face plate and is adapted to cover said opening in a sealed manner.

21. (once amended) A water-resistant electronic device comprising:

a housing having first and second sections, said first and second sections are adapted to be sealed together to form an interior portion, said interior portion is adapted to prevent water from entering therein;

an electronic component, said electronic component is adapted to be mounted in said interior portion

a fastening mechanism; and

a heat sink comprising a protuberance that extends into said housing and is coupled to said fastening mechanism, said heat sink adapted to be coupled to said housing by said fastening mechanism, [and is]said heat sink adapted to be coupled with said electronic component, wherein said heat sink is adapted to transfer the heat that is generated by the electronic device to an external environment.

31. (once amended) The electronic device as recited in claim [29]21, wherein said fastening mechanism includes a screw and a clip.

32. (once amended) The electronic device as recited in claim [21]33, [further comprising a]wherein said face plate [that]is [coupled to said housing and]adapted to selectively control the electronic device.

33. (once amended) [The electronic device as recited in claim 32]A water-resistant electronic device comprising:

a housing having first and second sections, said first and second sections are adapted to be sealed together to form an interior portion, said interior portion is adapted to prevent water from entering therein;

an electronic component, said electronic component is adapted to be mounted in said interior portion;

a face plate coupled to said housing; and

a heat sink, said heat sink adapted to be coupled to said housing and is adapted to be coupled with said electronic component, wherein said heat sink is adapted to transfer the heat that is generated by the electronic device to an external environment, wherein said face plate includes an opening and a hinged door for covering said opening in a sealed manner.

39. (once amended) A method for forming a water-resistant enclosure for an electronic device, said device includes a housing, an electronic component and a heat sink coupled to said housing by a fastening member, said heat sink including a protuberance that is in contact with said fastening member, wherein said housing is adapted to seal said electronic component within said housing, wherein said heat sink is adapted to be coupled within said housing and allow for the transfer of heat generated by said electronic component within said housing to the external environment, the method comprising the steps of:

mounting said electronic component in the housing;

sealing the housing in such a way to prevent water from entering the housing; and

coupling the heat sink to said electronic component.